=> d his 3

```
(FILE 'HCAPLUS' ENTERED AT 12:46:03 ON 24 JAN 2003)
L5
              5 S L3 AND (ANTIBOD? OR IMMUNOGLOBULIN# OR HAPTEN# OR EPITOPE#)
L6
             14 S L4 AND (ANTIBOD? OR IMMUNOGLOBULIN# OR HAPTEN# OR EPITOPE#)
L7
              9 S L6 NOT L5
=> d que 15
              4 SEA FILE=REGISTRY MKEYVLLLFLALCSAKPFFSPSHIALKNMMLKDMEDTDDDDDDDD
L1
                {\tt DDDDDEDNSLFPTREPRSHF. \{0-\}VGVNDFCPTVPKMKKSLYSAISLFNNPVKYWEMQPATF}
                RCVLSRMSVQLGNFGM/SQSP
L3
              6 SEA FILE=HCAPLUS L1
L5
              5 SEA FILE=HCAPLUS L3 AND (ANTIBOD? OR IMMUNOGLOBULIN# OR
                HAPTEN# OR EPITOPE#)
```

=> d ibib abs 15 1-5

ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2003 ACS 2002:90102 HCAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER:

136:146183

TITLE:

Nucleic acid and protein compositions and methods for

the diagnosis and treatment of disorders involving

angiogenesis

INVENTOR(S):

Baker, Kevin P.; Ferrara, Napoleone; Gerber,

Hanspeter; Gerritsen, Mary E.; Goddard, Audrey; Godowski, Paul J.; Gurney, Austin L.; Hillan, Kenneth J.; Marsters, Scot A.; Pan, James; Paoni, Nicholas F.; Stephan, Jean-Philippe F.; Watanabe, Colin K.;

Williams, P. Mickey; Wood, William I.; Ye, Weilan Genentech, Inc., USA

PATENT ASSIGNEE(S):

SOURCE:

PCT Int. Appl., 567 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

LANGUAGE:

Patent

English

FAMILY ACC. NUM. COUNT: 113

PAT	CENT	NO.		KI:								ON N		DATE			
WO	2002	0082	84											2001	0709		
		ΑE,														CH,	CN,
						DE,											
						ΙL,											
						MA,											
						SG,											
		UZ,	VN,	YU,	ZA,	ZW											
	RW:	GH,	GM,	ΚE,	LS,	MW,	ΜZ,	SD,	SL,	SZ,	TZ,	UG,	ZW,	AM,	ΑZ,	BY,	KG,
		KΖ,	MD,	RU,	ТJ,	TM,	ΑT,	BE,	CH,	CY,	DE,	DK,	ES,	FI,	FR,	GB,	GR,
		ΙE,	ΙΤ,	LU,	MC,	NL,	PT,	SE,	TR,	BF,	ВJ,	CF,	CG,	CI,	CM,	GA,	GN,
		GW,	ML,	MR,	ΝE,	SN,	TD,	TG									
WO	2001	00932	27	A.	2	2001	0208		W	20	00-U	S207	10 :	2000	0728		
WO	2001	0093	27	A.	3	2001	0802										
	W:	ΑE,	ΑG,	AL,	ΑM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BY,	ΒZ,	CA,	CH,	CN,
		CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EE,	ES,	FI,	GB,	GD,	GE,	GH,	GM,	HR,
		HU,	ID,	IL,	IN,	IS,	JP,	KΕ,	KG,	KΡ,	KR,	ΚZ,	LC,	LK,	LR,	LS,	LT,
		LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NΖ,	PL,	PT,	RO,	RU,
						SK,								UG,	US,	UZ,	VN,
		YU,	ZA,	ZW,	ΑM,	ΑZ,	ΒY,	KG,	ΚΖ,	MD,	RU,	ТJ,	TM				

```
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
          DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
          CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
 WO 2001016319
                     Α2
                           20010308
                                            WO 2000-US23522
 WO 2001016319
                           20011004
                     А3
          AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
          CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
          HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
          LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
          SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
     RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
          DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
          CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
WO 2001016318
                     Α2
                           20010308
                                            WO 2000-US23328 20000824
         AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
          CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
          HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
         LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
         SD, SE,
                  SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
     YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
         DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
         CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
WO 2001049715
                           20010712
                    A2
                                            WO 2000-US30952 20001108
WO 2001049715
                     А3
                           20020404
     W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
         CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
         SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
    RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
WO 2001040465
                    Α2
                           20010607
                                           WO 2000-US30873 20001110
WO 2001040465
                    АЗ
                           20020321
         AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
         CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
         HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
         LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
         SD, SE,
                  SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
         YU, ZA,
                  ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
     RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
         DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
         BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
AU 2001068028
                    Α5
                          20010924
                                          AU 2001-68028
                                                               20001129
WO 2001040466
                    A2
                          20010607
                                           WO 2000-US32678 20001201
WO 2001040466
                    АЗ
                          20020510
         AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
         CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
         HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
         LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
         SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
         YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
    RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
         DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE,
                                                                         TR, BF,
         BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
WO 2001046420
                          20010628
                                           WO 2000-US34956 20001220
                    Α2
```

```
WO 2001046420
                          · A3
                                 20020510
                AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
                CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM,
                HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
                LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
                SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU,
                ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
           RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
                DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
                BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
      US 2003008815
                           Α1
                                 20030109
                                                  US 2000-747259
                                                                      20001220
      US 2002042367
                           Α1
                                 20020411
                                                  US 2001-767609
                                                                      20010122
      US 2002192659
                           Α1
                                 20021219
                                                  US 2001-902853
                                                                      20010710
      US 2003003530
                           Α1
                                 20030102
                                                  US 2001-904011
                                                                      20010711
      US 2003017463
                           Α1
                                 20030123
                                                  US 2001-903640
                                                                      20010711
      US 2002160374
                           Α1
                                 20021031
                                                  US 2001-905291
                                                                      20010712
      US 2002197671
                           Α1
                                 20021226
                                                  US 2001-907824
                                                                      20010717
      US 2002198366
                           Α1
                                 20021226
                                                  US 2001-907841
                                                                      20010717
      US 2003017498
                           Α1
                                 20030123
                                                  US 2001-908093
                                                                      20010717
      US 2002132240
                           Α1
                                 20020919
                                                  US 2001-909320
                                                                      20010718
      US 2002146709
                           A1
                                 20021010
                                                  US 2001-909088
                                                                      20010718
      WO 2002016602
                           Α2
                                 20020228
                                                  WO 2001-US26626 20010823
               AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
               CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
               GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
               LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL,
               PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
          RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
               BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
      AU 2001086785
                                20020304
                                            AU 2001-86785
US 2001-938418
                          Α5
                                                                   20010823
      US 2002161199
                                20021031
                           Α1
                                                                   20010823
      US 2002182673
                          Α1
                                20021205
                                                  US 2001-157
                                                                     20011030
      WO 2003000729
                          Α2
                                20030103
                                                 WO 2001-US48938 20011213
               AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG,
               US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
          RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
               DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE,
                                                                               TR, BF,
               BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD,
     US 2002192752
                          A1
                                20021219
                                                 US 2002-53107
                                                                     20020117
     WO 2002101069
                                                 WO 2002-US10513 20020403
                          A2
                                20021219
              AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
          W:
               CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
               GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
               LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
               PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR,
                                                                               TT, TZ,
               UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ,
          RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
               CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
               BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN,
                                                                               TD, TG
PRIORITY APPLN. INFO.:
                                              US 2000-219556P
                                                                 P 20000720
                                              US 2000-220624P
                                                                 Ρ
                                                                    20000725
                                              US 2000-220664P
                                                                 Ρ
                                                                    20000725
                                              WO 2000-US20710
                                                                    20000728
```

US	2000-222695P	Р	20000802
US	2000-643657	A	20000817
WO	2000-US23522	W	20000823
WO	2000-US23328	W	20000824
US	2000-230978P	P	20000907
US	2000-664610	A	20000918
US	2000-665350	Α	20000918
US	2000-242922P	P	20001024
US	2000-70923	A	20001108
WO	2000-US30952	W	20001108
WO	2000-US30873	W	20001110
WO	2000-US32678	W	20001201
US	2000-747259	A	20001220
WO	2000-US34956	W	20001220
US	2001-767609	A	20010122
US	2001-796498	А	20010228
US	1997-59113P	P	19970917
US	1997-59115P	P	19970917
US	1997-59117P	P	19970917
US	1997-59119P	P	19970917
US	1997-59121P	P	19970917
US	1997-59122P	P	19970917
US	1997-59184P	P	
US	1997-59263P	P	19970917 19970918
US	1997-59266P	P	19970918
US	1997-62125P	P	19971015
US	1997-62285P	P	19971017
US	1997-62287P	P	19971017
US	1997-63486P	P	19971021
US	1997-62814P	Р	19971024
US	1997-62816P	P	19971024
US	1997-63045P	P	19971024
US US	1997-63120P	Р	19971024
US	1997-63121P	P	19971024
	1997-63127P	P	19971024
US	1997-63128P	P	19971024
US	1997-63327P	P	19971027
US	1997-63329P	P	19971027
US	1997-63541P	P	19971028
US	1997-63542P	P	19971028
US	1997-63544P	P	19971028
US	1997-63549P	P	19971028
US	1997-63550P	P	19971028
US	1997-63564P	P	19971028
US	1997-63435P	P	19971029
US	1997-63704P	P	19971029
US US	1997-63732P 1997-63734P	P	19971029
US	1997-63735P	P P	19971029 19971029
US	1997-63738P	P	19971029
US	1997-64215P	P	19971029
US	1997-66840P	P	19971125
US	1998-81071P	P	19980408
US	1998-85579P	P	19980515
US	1998-85697P	P	19980515
US	1998-97022P	P	19980818
US	1998-99601P	P	19980909
US	1998-158342	B1	19980921
US	1998-101922P	P	19980924
	->>0 101742E	-	1000024

```
WO 2000-US15264 W 20000602
US 2000-209832P P
                   20000605
US 2000-213087P P
                   20000622
US 2000-213807P P
                   20000622
WO 2000-US22031 W
                   20000811
US 2000-644848 A
                   20000822
US 2000-232887P P
                   20000915
US 2000-242837P P
                   20001024
US 2000-244072P P
                   20001026
US 2000-253646P P
                   20001128
WO 2001-US6520
                W
                   20010228
US 2001-816744
                A2 20010322
US 2001-854208
               A2 20010510
US 2001-854280
                A2 20010510
WO 2001-US17800 W
                   20010601
US 2001-874503 A2 20010605
US 2001-880457
                Α
                   20010612
WO 2001-US19692 W
                   20010620
WO 2001-US21066 W
                   20010629
WO 2001-US21735 W 20010709
US 2001-908827
               A2 20010718
US 2001-918585
               A2 20010730
US 2001-929404
                A2 20010813
US 2001-931836
                A2 20010816
WO 2001-US26626 W 20010823
```

Nucleic acid and protein compns. and methods are disclosed for stimulating AΒ or inhibiting angiogenesis and/or cardiovascularization in mammals, including humans. Thus, 187 cDNAs and their encoded protein sequences isolated from human cDNA libraries are identified by extracellular domain homol. screening, amylase screening, and signal algorithm anal. The pharmaceutical compns. are based on polypeptides or antagonists thereto that have been identified for one or more of these uses. Disorders that can be diagnosed, prevented, or treated by the compns. herein include trauma such as wounds, various cancers, and disorders of the vessels including atherosclerosis and cardiac hypertrophy. Also provided herein are vectors and host cells comprising those nucleic acid sequences, chimeric polypeptide mols. comprising the polypeptides of the present invention fused to heterologous polypeptide sequences, antibodies which bind to the polypeptides of the present invention, and to methods for producing the polypeptides of the present invention.

```
L5 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2003 ACS ACCESSION NUMBER: 2002:10508 HCAPLUS
```

DOCUMENT NUMBER:

136:65268

TITLE:

Human nucleic acid and encoded protein compositions

and methods for the diagnosis and treatment of

disorders involving angiogenesis

INVENTOR(S):

Baker, Kevin P.; Ferrara, Napoleone; Gerber,

Hanspeter: Gerritsen, Mary F.; Goddard, Audro

Hanspeter; Gerritsen, Mary E.; Goddard, Audrey; Godowski, Paul J.; Gurney, Austin L.; Hillan, Kenneth J.; Marsters, Scot A.; Pan, James; Paoni, Nicholas F.;

Stephan, Jean-philippe F.; Watanabe, Colin K.; Williams, P. Mickey; Wood, William I.; Ye, Weilan

PATENT ASSIGNEE(S): SOURCE:

Genentech, Inc., USA PCT Int. Appl., 565 pp.

DOCUMENT TYPE:

CODEN: PIXXD2 Patent

LANGUAGE: FAMILY ACC. NUM. COUNT:

English

```
US 1998-103679P P
                   19981008
US 1998-107783P P
                   19981110
US 1998-108802P P
                   19981110
WO 1998-US25190 W
                   19981125
US 1998-113296P P
                   19981222
US 1998-218517 B1 19981222
US 1998-113621P P 19981223
               A1 19990308
WO 1999-US5028
US 1999-284663
               A2 19990415
US 1999-130232P P
                   19990421
US 1999-131022P P
                   19990426
US 1999-131291P
                Р
                   19990427
US 1999-134287P
               P 19990514
US 1999-311832
                A2 19990514
WO 1999-US12252
               A1 19990602
US 1999-138387P
                Ρ
                   19990609
US 1999-146222P
                P 19990728
US 1999-380138
               A2 19990825
US 1999-380142
                B2 19990825
US 1999-151733P P 19990831
WO 1999-US20111 W 19990901
WO 1999-US20594 W 19990908
WO 1999-US20944 W 19990913
WO 1999-US21090 W 19990915
WO 1999-US28214 W 19991129
WO 1999-US28313 W 19991130
WO 1999-US28301 W 19991201
WO 1999-US28551 W 19991202
WO 1999-US28565 W 19991202
US 1999-169495P P 19991207
US 1999-170262P P 19991209
WO 1999-US30095 W 19991216
WO 1999-US30999 W 19991220
US 1999-172059P P 19991223
US 1999-172096P P 19991223
WO 1999-US31274 W 19991230
WO 2000-US219 W 20000105
WO 2000-US277
               W 20000106
WO 2000-US376 W 20000106
US 2000-175481P P 20000111
US 2000-177118P P 20000120
WO 2000-US3565 W 20000211
WO 2000-US4341 W 20000218
WO 2000-US4342 W 20000218
WO 2000-US4414 W 20000222
WO 2000-US4914 W 20000224
WO 2000-US5004 W 20000224
WO 2000-US5601
              W 20000301
WO 2000-US5841
                W 20000302
US 2000-187202P P 20000303
US 2000-522342 B2 20000309
WO 2000-US6884
                W 20000315
US 2000-191007P P 20000321
                  20000321
WO 2000-US7532
                W
WO 2000-US8439
                W
                   20000330
                   20000425
US 2000-199397P
                Ρ
WO 2000-US13705
                W
                   20000517
WO 2000-US14042
                W
                   20000522
WO 2000-US14941
               W
                   20000530
```

```
PATENT NO.
                    KIND
                          DATE
                                           APPLICATION NO.
                                                              DATE
                                           -----
WO 2002000690
                   A2
                          20020103
                                           WO 2001-US19692 20010620
         SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
         YU, ZA,
                  ZW
     RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG,
         KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
WO 2001009327
                   Α2
                          20010208
                                          WO 2000-US20710 20000728
WO 2001009327
                    А3
                          20010802
         AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
         CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
         LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
         SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
    RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
WO 2001016319
                   A2
                          20010308
                                           WO 2000-US23522 20000823
WO 2001016319
                   А3
                          20011004
        AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
    W:
         CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
         HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
         LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
         SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
         YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
     RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
         DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
         CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
WO 2001016318
                    Α2
                          20010308
                                         WO 2000-US23328 20000824
         AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
         CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
         HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
         LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
         SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
         YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
    RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
         DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
         CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
WO 2001049715
                  A2
                          20010712
                                         WO 2000-US30952 20001108
WO 2001049715
                    А3
                          20020404
        AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
         CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
         HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
         LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
         SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
    RW: GH, GM,
                 KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
         DE, DK,
                 ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
         BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
WO 2001040465
                    A2
                          20010607
                                          WO 2000-US30873 20001110
```

```
WO 2001040465
                        20020321
                  Α3
        AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
        CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
        HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
        LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
        SD, SE,
                SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
        YU, ZA,
                ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
    RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
        DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
        BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
AU 2001068028
                  Α5
                        20010924
                                      AU 2001-68028
                                                        20001129
WO 2001040466
                  Α2
                        20010607
                                       WO 2000-US32678 20001201
WO 2001040466
                  ΑЗ
                        20020510
        AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
        CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
        HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
        LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
        SD, SE,
                SG, SI, SK, SL,
                                TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
                ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
        YU, ZA,
    RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
        DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
        BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                       20030109
US 2003008815
                  Α1
                                      US 2000-747259
                                                        20001220
US 2002042367
                  Α1
                       20020411
                                       US 2001-767609
                                                        20010122
US 2002192659
                  Α1
                       20021219
                                       US 2001-902853
                                                        20010710
US 2003003530
                  Α1
                       20030102
                                       US 2001-904011
                                                        20010711
US 2003017463
                       20030123
                  Α1
                                       US 2001-903640
                                                        20010711
US 2002160374
                  Α1
                       20021031
                                       US 2001-905291
                                                        20010712
US 2002197671
                       20021226
                  Α1
                                       US 2001-907824
                                                        20010717
US 2002198366
                       20021226
                                       US 2001-907841
                  A1
                                                        20010717
US 2003017498
                  Α1
                       20030123
                                       US 2001-908093
                                                        20010717
US 2002132240
                       20020919
                  Α1
                                       US 2001-909320
                                                        20010718
US 2002146709
                  Α1
                       20021010
                                       US 2001-909088
                                                        20010718
WO 2002016602
                  A2
                       20020228
                                      WO 2001-US26626
                                                        20010823
        AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
        CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE,
        GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK,
        LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH,
                                                                     PL,
        PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA,
        US, UZ,
                VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ,
    RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH,
        DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
        BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD,
AU 2001086785
                  Α5
                       20020304
                                      AU 2001-86785
                                                        20010823
US 2002161199
                  Α1
                       20021031
                                      US 2001-938418
                                                        20010823
WO 2002024888
                  A2
                       20020328
                                      WO 2001-US27099 20010829
       AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
        CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
        GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
        LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL,
        PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA,
        US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ,
    RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
        DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
        BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD,
US 2002182673
                A1
                       20021205
                                      US 2001-157
                                                        20011030
US 2002192209
                  Α1
                       20021219
                                      US 2001-1054
                                                        20011130
                                   WO 2001-US48938 20011213
WO 2003000729
                  Α2
                       20030103
       AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
```

USS	1997-63327P 1997-63541P 1997-63542P 1997-63544P 1997-63550P 1997-63550P 1997-63564P 1997-63734P 1997-63734P 1997-63734P 1997-63735P 1997-63735P 1997-63735P 1997-63735P 1997-63735P 1997-63735P 1997-63738P 1997-63738P 1997-63738P 1997-63738P 1997-63738P 1997-63738P 1997-83738P 1997-83738P 1998-85697P 1998-85697P 1998-99601P 1998-158342 1998-107783P 1998-103679P 1998-103679P 1998-1362P 1998-1329P 1998-1329P 1998-13122P 1999-284663 1999-284663 1999-13122P 1999-13123P 1999-13122P 1999-13123P 1999-13122P 1999-13123P	PPPPPPPPPPPPPPPPPBWPBPABAPPPAAPPAABPWWAWWAR	19971027 19971028 19971028 19971028 19971028 19971028 19971029 19971029 19971029 19971029 19971029 19971029 19971029 19971029 19971029 19971029 19971029 19971029 19971029 19980408 19980515 19980515 19980818 19980921 19980921 19981125 19981125 19981125 19981222 19981223 19991110 19990426 19990427 19990909 199909091 199909091
WO	1999-US20594	W	19990908
US	1999-380913	Al	19990909
WO	1999-US20944	W	19990913
WO	1999-US21090	W	19990915

```
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL,
             PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ,
                                                      TM, TR, TT, TZ, UA, UG,
             US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
                                                                           BF,
             BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
     US 2002192752
                       Α1
                             20021219
                                            US 2002-53107
                                                              20020117
     WO 2002101069
                             20021219
                       A2
                                            WO 2002-US10513 20020403
             AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
         W:
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
             UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ,
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
             CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
             BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
PRIORITY APPLN. INFO.:
                                         US 2000-213637
                                                          P 20000623
                                         US 2000-219556
                                                          Ρ
                                                             20000720
                                         US 2000-220624
                                                          Ρ
                                                             20000725
                                         US 2000-220664
                                                          Ρ
                                                             20000725
                                         WO 2000-US20710
                                                          W
                                                             20000728
                                         US 2000-222695
                                                          Ρ
                                                             20000802
                                         US 2000-643657
                                                          Α
                                                             20000817
                                         WO 2000-US23522
                                                          W
                                                             20000823
                                         WO 2000-US23328
                                                             20000824
                                                          W
                                         US 2000-230978
                                                          Ρ
                                                             20000907
                                         US 2000-664610
                                                          Α
                                                             20000918
                                         US 2000-665350
                                                          Α
                                                             20000918
                                         US 2000-242922
                                                          Р
                                                             20001024
                                        US 2000-709238
                                                             20001108
                                                          Α
                                        WO 2000-US30952
                                                          W
                                                             20001108
                                         WO 2000-US30873
                                                          W
                                                             20001110
                                        WO 2000-US32678
                                                          W
                                                             20001201
                                         US 2000-747259
                                                          Α
                                                             20001220
                                        WO 2000-US3956
                                                          W
                                                             20001220
                                        US 2001-767609
                                                          Α
                                                             20010122
                                         US 1997-59113P
                                                          Ρ
                                                             19970917
                                        US 1997-59115P
                                                          Ρ
                                                             19970917
                                        US 1997-59117P
                                                          Ρ
                                                             19970917
                                        US 1997-59119P
                                                          Ρ
                                                             19970917
                                        US 1997-59121P
                                                          Ρ
                                                             19970917
                                        US 1997-59122P
                                                          Ρ
                                                             19970917
                                        US 1997-59184P
                                                             19970917
                                                          Ρ
                                        US 1997-59263P
                                                          Ρ
                                                             19970918
                                        US 1997-59266P
                                                          Ρ
                                                             19970918
                                        US 1997-62125P
                                                          Ρ
                                                            19971015
                                        US 1997-62285P
                                                          Ρ
                                                            19971017
                                        US 1997-62287P
                                                          Ρ
                                                            19971017
                                        US 1997-63486P
                                                          Ρ
                                                            19971021
                                        US 1997-62814P
                                                          Ρ
                                                            19971024
                                        US 1997-62816P
                                                          Ρ
                                                            19971024
                                        US 1997-63045P
                                                          Ρ
                                                             19971024
                                        US 1997-63120P
                                                          Ρ
                                                             19971024
                                        US 1997-63121P
                                                          Ρ
                                                             19971024
                                        US 1997-63127P
                                                          Ρ
                                                             19971024
                                        US 1997-63128P
                                                          Ρ
                                                            19971024
```

```
US 1999-170262P
                  Ρ
                     19991209
WO 1999-US30095
                 W
                     19991216
WO 1999-US30999
                  W
                     19991220
US 1999-172059P
                  Р
                     19991223
US 1999-172096P
                  Þ
                     19991223
WO 1999-US31274
                  W
                     19991230
WO 2000-US219
                  W
                     20000105
WO 2000-US277
                  W
                     20000106
WO 2000-US376
                  W
                     20000106
US 2000-175481P
                  Ρ
                     20000111
US 2000-177118P
                 Ρ
                     20000120
WO 2000-US3565
                     20000211
                  W
WO 2000-US4341
                     20000218
                  W
WO 2000-US4342
                  W
                     20000218
WO 2000-US4414
                     20000222
                 W
WO 2000-US4914
                 W
                     20000224
WO 2000-US5004
                 W
                     20000224
WO 2000-US5601
                 W
                     20000301
WO 2000-US5841
                 W
                     20000302
US 2000-187202P
                 Ρ
                     20000303
US 2000-522342
                 B2 20000309
WO 2000-US6884
                 W
                     20000315
US 2000-191007P
                 Ρ
                     20000321
WO 2000-US7532
                 W
                     20000321
WO 2000-US8439
                 W
                     20000330
US 2000-199397P
                 Ρ
                     20000425
WO 2000-US13705
                 W
                     20000517
WO 2000-US14042
                 W
                     20000522
WO 2000-US14941
                 W
                     20000530
WO 2000-US15264
                 A2 20000602
US 2000-209832P
                 Ρ
                     20000605
US 2000-213087P
                 Р
                     20000622
US 2000-213807P
                 Р
                    20000622
WO 2000-US22031
                 W 20000811
                 A2 20000822
US 2000-644848
US 2000-229896P
                P 20000901
US 2000-230621P
                 P 20000905
                P 20000915
US 2000-232887P
US 2000-235147P
                P 20000922
US 2000-242837P
                P 20001024
US 2000-244072P
                P 20001026
US 2000-253646P
                P 20001128
WO 2000-US34956
                W 20001220
US 2001-261878P
                P 20010112
US 2001-261910P
                P 20010116
US 2001-261939P
                P 20010116
US 2001-262150P
                 P 20010116
US 2001-264395P
                 P 20010125
US 2001-266421P
                 P 20010202
US 2001-267623P
                 P 20010209
WO 2001-US6520
                 W 20010228
US 2001-274399P
                 P 20010309
US 2001-802706
                 A1 20010309
US 2001-816744
                 A2 20010322
US 2001-280982P
                 Ρ
                    20010403
US 2001-282129P
                 Ρ
                    20010404
US 2001-282199P
                 Ρ
                    20010404
US 2001-290589P
                 Ρ
                    20010509
US 2001-854208
                 A2 20010510
```

308-4292

```
US 2001-854280
                           A2 20010510
 US 2001-866034 A1 20010525
 WO 2001-US17092 W 20010525
 US 2001-872034 A1 20010601
 US 2001-872035
                           A1 20010601
 WO 2001-US17800 W 20010601
 US 2001-874503 A2 20010605
US 2001-880457 A 20010612
US 2001-882636 A1 20010614
WO 2001-US19692 W 20010620
WO 2001-US21066 W 20010629
WO 2001-US21735 W 20010709
US 2001-908827 A2 20010718
US 2001-918585 A2 20010730
                           A2 20010730
US 2001-916363 A2 20010736

US 2001-924419 A1 20010806

US 2001-927796 A1 20010809

US 2001-929404 A2 20010813

US 2001-931836 A2 20010816

WO 2001-US26626 W 20010823

US 2001-941992 A1 20010828
                         A1 20010904
US 2001-946374
```

Compns. and methods are disclosed for stimulating or inhibiting AΒ angiogenesis and/or cardiovascularization in mammals, including humans. Thus, 187 cDNA clones encoding secreted and/or transmembrane proteins were isolated from various human cDNA libraries using extracellular domain homol. screening, amylase screening, and signal algorithm anal. The proteins exhibit useful biol. activities in various assays: stimulation of endothelial cell proliferation, inducing cardiac hypertrophy, inducing endothelial cell apoptosis, stimulating smooth muscle cell growth, inducing angiogenesis by stimulating endothelial cell tube formation in HUVEC cells, and induction of c-fos in HUVEC cells. Pharmaceutical compns. are based on polypeptides or antagonists thereto that have been identified for one or more of these uses. Disorders that can be diagnosed, prevented, or treated by the compns. herein include trauma such as wounds, various cancers, and disorders of the vessels including atherosclerosis and cardiac hypertrophy. In addn., the present invention is directed to novel polypeptides and to nucleic acid mols. encoding those polypeptides. Also provided herein are vectors and host cells comprising those nucleic acid sequences, chimeric polypeptide mols. comprising the polypeptides of the present invention fused to heterologous polypeptide sequences, antibodies which bind to the polypeptides of the present invention and to methods for producing the polypeptides of the present invention.

```
L5 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2003 ACS ACCESSION NUMBER: 2001:417147 HCAPLUS
```

DOCUMENT NUMBER: 135:29838

TITLE: Secreted and transmembrane proteins identified by

sequence comparison and cDNAs encoding them and their

uses

INVENTOR(S): Baker, Kevin; Beresini, Maureen; Deforge, Laura;

Desnoyers, Luc; Filvaroff, Ellen; Gao, Wei Qiang; Gerritsen, Amry E.; Goddard, Audrey; Godowski, Paul J.; Gurney, Austin L.; Gherwood, Steven; Smith, Victoria; Stewart, Timothy A.; Tumas, Daniel;

Watanabe, Colin K.; Wood, William I.; Zhang, Zemin

PATENT ASSIGNEE(S): Genentech, Inc., USA SOURCE: PCT Int. Appl., 813 pp.

CODEN: PIXXD2

DOCUMENT TYPE: LANGUAGE:

Patent English

FAMILY ACC. NUM. COUNT: 113

```
PATENT NO.
                    KIND
                           DATE
                                             APPLICATION NO.
                                                                 DATE
                    ----
                           -----
                                             -----
WO 2001040466
                    A2
                           20010607
                                             WO 2000-US32678
                                                                 20001201
WO 2001040466
                    A3
                           20020510
     W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
          CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
         HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
          SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
          YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
     RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                           20000608
WO 2000032776
                    A2
                                            WO 1999-US28301 19991201
                    АЗ
WO 2000032776
                           20001228
        AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU,
     W:
         CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ,
         BY, KG, KZ, MD, RU, TJ, TM
     RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
         CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                           20000629
WO 2000037638
                    A2
                                           WO 1999-US28565 19991202
WO 2000037638
                     ΑЗ
                           20001109
         AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU,
         CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,
         IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV,
         MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI,
         SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ,
         BY, KG, KZ, MD, RU, TJ, TM
     RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
         DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
         CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                          20000914
                                            WO 1999-US28551 19991202
WO 2000053750
                    A1
         AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU,
         CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,
         IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD,
         MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK,
         SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ,
         BY, KG, KZ, MD, RU, TJ, TM
    RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
         DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
         CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
WO 2000037640
                   A2
                         20000629
                                           WO 1999-US30095 19991216
WO 2000037640
                          20001228
                    АЗ
         AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU,
    W:
         CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,
         IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD,
         MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK,
         SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY,
         KG, KZ, MD, RU, TJ, TM
    RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
```

```
DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
         CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
WO 2001005836
                           20010125
                     A1
                                            WO 1999-US30999
                                                                19991220
         AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD,
         MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY,
         KG, KZ,
                  MD, RU, TJ, TM
         GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
    RW: GH, GM,
         CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
WO 2000053752
                           20000914
                     Α2
                                            WO 1999-US31274 19991230
WO 2000053752
                     АЗ
                           20001221
         AE, AL,
                  AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU,
         CZ, DE,
                  DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,
         IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD,
         MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK,
                  TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY,
         SL, TJ,
         KG, KZ, MD, RU, TJ, TM
    RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
         DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
         CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD,
                                                             TG
WO 2000053754
                     Α1
                           20000914
                                            WO 2000-US277
                                                                20000106
         AE, AL,
                  AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU,
                  DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,
                  JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD,
         IN, IS,
         MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK,
         SL, TJ,
                  TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY,
         KG, KZ, MD, RU, TJ, TM
    RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
         DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
         CG, CI,
                  CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
WO 2001053486
                           20010726
                                            WO 2000-US3565
                     Α1
                                                                20000211
         AE, AL,
                  AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU,
         CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,
         IN, IS,
                  JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA,
         MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI,
         SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM,
         AZ, BY, KG, KZ, MD, RU, TJ, TM
    RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
         DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
         CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
WO 2000078961
                           20001228
                                          WO 2000-US4342
                                                                20000218
                    Α1
                  AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU,
         AE, AL,
         CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,
         IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA,
         MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI,
         SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM,
         AZ, BY, KG, KZ, MD, RU, TJ, TM
    RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
                  FI, FR, GB, GR, IE, IT, LU, MC, NL, PT,
                                                                 SE, BF, BJ, CF,
         DK, ES,
         CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
WO 2000075327
                    A1
                          20001214
                                           WO 2000-US4914
                                                                20000224
                 AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU,
         AE, AL,
         CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM,
```

```
AZ, BY, KG, KZ, MD, RU, TJ, TM
     RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
         DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
         CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
WO 2000056889
                    Α2
                          20000928
                                          WO 2000-US5601
                                                             20000301
WO 2000056889
                    АЗ
                          20010426
         AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU,
         CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,
         IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA,
         MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI,
         SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM,
         AZ, BY, KG, KZ, MD, RU, TJ, TM
    RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
         DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
         CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
WO 2001005972
                    Α1
                         20010125
                                                            20000315
                                         WO 2000-US6884
        AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU,
         CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,
         IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI,
         SK, SL, TJ, TM, TR, TT,
                                   TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM,
         AZ, BY, KG, KZ, MD, RU,
                                   TJ,
                                       TM
    RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
         DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
WO 2000070050
                         20001123
                   A1
                                         WO 2000-US7532
                                                            20000321
        AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR,
        CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU,
         LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA,
         ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
    RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
         DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT,
                                                             SE, BF, BJ, CF,
         CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
WO 2000073445
                   A2
                         20001207
                                         WO 2000-US13705 20000517
WO 2000073445
                    А3
                         20010301
        AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR,
         CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU,
         ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU,
         LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE,
         SG, SI,
                 SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA,
         ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
    RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
         DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
         CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
WO 2000073348
                   Α2
                         20001207
                                         WO 2000-US14941 20000530
WO 2000073348
                   А3
                         20010705
        AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR,
    W:
        CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU,
         ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU,
        LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD,
        SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU,
        ZA, ZW,
                AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
    RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
         DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
        CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
WO 2001040464
                         20010607
                                         WO 2000-US22031 20000811
                 A1
WO 2001040464
                   C1
                         20010628
```

```
AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
         CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
         HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
         LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
         SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
         YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
     RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
         CF, CG, CI, CM, GA, GN,
                                     GW, ML, MR, NE, SN, TD, TG
WO 2001016318
                     Α2
                                            WO 2000-US23328
                           20010308
                                                               20000824
         AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
         LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
         SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
         YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
     RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
         DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
WO 2001049715
                    A2
                           20010712
                                            WO 2000-US30952 20001108
WO 2001049715
                     А3
                           20020404
         AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
         CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
         HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
         LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD
         , SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU,
         ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
    RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
         DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
         BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
AU 2001068028
                     Α5
                           20010924
                                            AU 2001-68028
                                                                20001129
EP 1250426
                     Α2
                           20021023
                                            EP 2000-983846
                                                                20001201
        AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
         IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
WO 2001046420
                     A2
                           20010628
                                            WO 2000-US34956 20001220
WO 2001046420
                     А3
                           20020510
         AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
         CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
         HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
         LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
                  SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU,
         SD, SE,
         ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
    RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
         DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
         BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
EP 1240325
                    Α2
                           20020918
                                            EP 2000-989401
                                                              20001220
        AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
         IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
US 2003008815
                           20030109
                                            US 2000-747259
                    Α1
                                                                20001220
WO 2001066740
                    A2
                           20010913
                                            WO 2001-US6666
                                                                20010301
WO 2001066740
                    А3
                           20020919
         AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
         CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
         HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
         LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
    SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
```

```
BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
US 2003003546
                          20030102
                    Α1
                                          US 2001-816744
                                                              20010322
US 2002010137
                    A1
                          20020124
                                          US 2001-828366
                                                              20010405
WO 2001092331
                    A2
                          20011206
                                          WO 2001-US17092
                                                            20010525
        AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH,
         CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
         HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
         LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
         SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
         YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
    RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
         DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
         BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
WO 2002000690
                    A2
                          20020103
                                          WO 2001-US19692 20010620
        AE, AG,
                 AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
         CR, CU,
                  CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
         HU, ID,
                 IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
         LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
                  SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
         SD, SE,
         YU, ZA,
    RW: GH, GM,
                 KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG,
         KZ, MD,
                  RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR,
                 LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN,
         IE, IT,
         GW, ML, MR, NE, SN, TD, TG
WO 2002000711
                   Α2
                          20020103
                                          WO 2001-US20116 20010622
WO 2002000711
                    А3
                          20020620
    W:
        AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
         CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EE, EE, ES, FI, FI, GB,
         GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ,
         LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO,
         NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT,
         TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ,
    RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
         DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
         BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
WO 2002016429
                   A2
                          20020228
                                         WO 2001-US20118 20010622
        AE, AG,
                 AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
         CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
         HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
         LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
         SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
         YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
    RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
         DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
         BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
AU 2001070118
                          20020304
                                        AU 2001-70118
                                                            20010622
                   Α5
WO 2002008288
                          20020131
                                          WO 2001-US21066 20010629
                   Α2
        AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
         YU, ZA, ZW
    RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR,
         IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN,
         GW, ML, MR, NE, SN, TD, TG
WO 2002008284
                 A2 20020131
                                        WO 2001-US21735 20010709
       AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
```

```
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
              GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,
              RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US,
              UZ, VN, YU, ZA,
                                ZW
          RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG,
              KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR,
              IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     AU 2001071973
                         Α5
                               20020205
                                                AU 2001-71973
                                                                   20010709
     WO 2002016602
                         Α2
                               20020228
                                                WO 2001-US26626
                                                                  20010823
              AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
              CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
              GM, HR, HU, ID, IL, IN,
                                         IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
              LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL,
              PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
          RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH,
                                                                                 CY,
              DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
     AU 2001086785
                         Α5
                               20020304
                                                AU 2001-86785
                                                                   20010823
     US 2002161199
                         Α1
                               20021031
                                                US 2001-938418
                                                                  20010823
     US 2002102647
                         Α1
                               20020801
                                                US 2001-944449
                                                                  20010830
     US 2002110859
                               20020815
                         Α1
                                               US 2001-944457
                                                                  20010830
     US 2002132981
                               20020919
                         Α1
                                               US 2001-944396
                                                                  20010830
     US 2002142958
                         A1
                               20021003
                                               US 2001-943762
                                                                  20010830
     US 2002142419
                         Α1
                               20021003
                                               US 2001-944432
                                                                  20010830
     US 2002156004
                               20021024
                         Α1
                                               US 2001-944413
                                                                  20010830
     US 2002165143
                         Α1
                               20021107
                                               US 2001-944403
                                                                  20010830
     US 2002115145
                                               US 2001-944862
                         Α1
                               20020822
                                                                  20010831
     US 2002127643
                         Α1
                               20020912
                                               US 2001-945587
                                                                  20010831
     US 2002132768
                         Α1
                               20020919
                                               US 2001-945015
                                                                  20010831
     US 2002142959
                               20021003
                                               US 2001-944654
                         Α1
                                                                  20010831
     US 2002173463
                               20021121
                         Α1
                                               US 2001-944944
                                                                  20010831
     US 2002198147
                               20021226
                         Α1
                                               US 2001-944907
                                                                  20010831
     US 2002182673
                               20021205
                         Α1
                                               US 2001-157
                                                                  20011030
     US 2002192634
                         A1
                               20021219
                                               US 2001-27603
                                                                  20011219
     US 2002090681
                               20020711
                         Α1
                                               US 2001-36342
                                                                  20011226
     US 2002098506
                               20020725
                         Α1
                                               US 2001-33301
                                                                  20011227
     US 2002098507
                               20020725
                         Α1
                                               US 2001-33326
                                                                  20011227
     US 2002160392
                         Α1
                               20021031
                                               US 2001-33245
                                                                  20011227
     US 2002164646
                         Α1
                               20021107
                                               US 2001-33223
                                                                  20011227
     US 2002182618
                         Α1
                               20021205
                                               US 2001-33167
                                                                  20011227
     US 2002098505
                         A1
                               20020725
                                               US 2001-33246
                                                                  20011228
     US 2002192752
                         Α1
                               20021219
                                               US 2002-53107
                                                                  20020117
     WO 2002101069
                               20021219
                         Α2
                                               WO 2002-US10513
                                                                  20020403
         W:
              AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
              CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
              GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
              LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
              PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
              UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ,
          RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
              CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
              BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
                                                                  20020503
     US 2003013855
                        A1
                               20030116
                                             US 2002-63616
PRIORITY APPLN. INFO.:
                                            WO 1999-US28301 W
                                                                 19991201
                                            WO 1999-US28551
                                                              W
                                                                  19991202
                                            WO 1999-US28565
                                                              W
                                                                  19991202
```

T+7.0	1000 1102000	T.7	10001016
WO	1999-US30095	W	19991216
WO	1999-US30999	W	19991220
WO	1999-US31274	W	19991230
WO	2000-US277	W	20000106
WO	2000-US3565	W	20000211
WO	2000-US4342	W	20000218
WO	2000-US4914	W	20000224
WO	2000-US5601	W	20000301
US	2000-187202P	P	20000301
WO	2000-US6884	W	20000303
WO	2000-US7532	W	20000313
WO	2000-037332 2000-US13705	W	20000521
WO	2000-US13703 2000-US14941	W	20000517
	2000-0514941 2000-209832P		
US		P	20000605
WO	2000-US22031 2000-US23328	W	20000811
MO		W	20000824
WO	2000-US30952	W	20001108
US	1997-59263P	P	19970918
US	1997-59836P	Ρ	19970924
US	1997-63561P	Ρ	19971028
US	1997-64248P	Ρ	19971103
US	1997-67411P	P	19971203
US	1997-69278P	P	19971211
US	1997-69334P	P	19971211
US	1997-69335P	P	19971211
US	1997-69425P	Ρ	19971212
US	1997-69694P	Р	19971216
US	1997-69696P	Р	19971216
US	1997-69702P	Р	19971216
US	1997-69870P	P	19971217
US	1997-69873P	P	19971217
US	1997-68017P	P	19971218
US	1998-70440P	P	19980105
US	1998-74086P	P	19980209
US	1998-74092P	P	19980209
US	1998~75945P	P	19980225
US	1998-79124P	P	19980323
US	1998-81071P	P	19980408
US	1998-81569P	P	19980413
US	1998-85579P	P	19980515
US	1998-85697P	P	19980515
US	1998-96146P	P	19980811
US	1998-97022P	P	19980818
WO	1998-US17888		19980828
US	1998-99803P	M	
		P	19980910
WO WO	1998-US18824	W	19980910
	1998-US19330 1998-101922P	W	19980916
US		P	19980924
US	1998-103679P	Р	19981008
US	1998-104080P	P	19981013
WO	1998-US25108	M	19981201
US	1998-112514P	P	19981215
US	1998-112850P	P	19981216
US	1998-216021	B1	19981216
US	1998-113296P	P	19981222
US	1998-113300P	P	19981222
US	1998-218517	B1	19981222
US	1998-113430P 1998-113605P	P	19981223
US	1998 - 113605P	P	19981223

US 1998-113621P P 19981223 US 1999-254311 A1 19990303 WO 1999-US5028 W 19990308 US 1999-123972P P 19990311 US 1999-123957P Ρ 19990312 WO 1999-US6098 W 19990319 US 1999-125774P Ρ 19990323 US 1999-125778P Ρ 19990323 US 1999-125826P P 19990324 US 1999-126773P Р 19990329 US 1999-127035P P 19990331 US 1999-127706P P 19990405 US 1999-130232P P 19990421 US 1999-130359P P 19990421 US 1999-131022P P 19990426 US 1999-131270P P 19990427 US 1999-131272P P 19990427 US 1999-131291P P 19990427 US 1999-131445P P 19990428 US 1999-132371P P 19990504 US 1999-132379P P 19990504 US 1999-132383P P 19990504 US 1999-133459P P 19990511 US 1999-134287P P 19990514 US 1999-311832 A2 19990514 WO 1999-US10733 W 19990514 US 1999-135750P P 19990525 WO 1999-US12252 W 19990602 US 1999-138166P P 19990608 US 1999-138387P P 19990609 US 1999-140650P P 19990622 US 1999-140653P P 19990622 US 1999-141037P P 19990623 US 1999-144758P P 19990720 US 1999-144791P P 19990720 US 1999-145698P P 19990726 US 1999-146222P P 19990728 US 1999-146970P P 19990803 US 1999-149395P P 19990817 US 1999-380137 A1 19990825 US 1999-380138 A2 19990825 US 1999~380142 B2 19990825 US 1999-151689P P 19990831 WO 1999-US20111 W 19990901 WO 1999-US20594 W 19990908 WO 1999-US20944 W 19990913 WO 1999-US21090 W 19990915 19990915 WO 1999-US21547 W WO 1999-US23089 W 19991005 US 1999-162506P Ρ 19991029 WO 1999-US28214 W 19991129 WO 1999-US28313 W 19991130 WO 1999-US28409 W 19991130 WO 1999-US28634 W 19991201 WO 1999-US28564 W 19991202 US 1999-169495P Ρ 19991207 US 1999-170262P Ρ 19991209 19991220 WO 1999-US30911 W US 1999-172096P P 19991223

MO	1000 11021242	F.7	10001000
WO	1999-US31243	W	19991230
WO	2000-US219	W	20000105
WO	2000-US376	W	20000106
	2000 05570		
US	2000-175481P	P	20000111
WO	2000-US4341	Α	20000218
WO	2000-US4414	А	20000222
	2000 054414		
WO	2000-US5004	Α	20000224
WO	2000-US5841	Α	20000302
WO	2000-US6319	Α	20000310
US		P	
	2000-191007P 2000-191015P	_	20000321
US		P	20000321
WO	2000-US8439	W	20000330
US	2000-199397P	Р	20000425
US	2000-565278	A1	20000427
	2000-303270		
WO	2000-US14042	А	20000522
WO	2000-US15264	W	20000602
US	2000-213087P	P	20000622
US	2000-213807P		
	2000-213607P	Р	20000622
US	2000-213637	P	20000623
US	2000-213637P	P	20000623
US	2000-219556	Р	20000720
US	2000-219556P		
	2000-219556P	P	20000720
US	2000-220585P	P	20000725
US	2000-220605P	P	20000725
US	2000-220607P	Ρ	20000725
US	2000-220624	P	20000725
US	2000-220624P	Ρ	20000725
US	2000-220638P	Ρ	20000725
US	2000-220664	Р	20000725
US	2000-220664P	P	20000725
	2000-220004P		
US	2000-220666P	P	20000725
US	2000-220893P	P	20000726
WO	2000-US20710	W	20000728
US	2000-222425P	P	20000801
	2000-222425F		
US		Ρ	20000802
US	2000-222695P	Ρ	20000802
US	2000-643657	Α	20000817
US	2000-227133P	Р	20000822
US	2000-644848	Ā	20000822
WO	2000-US23522	W	20000823
US	2000-230978	Р	20000907
US	2000-230978P	Р	20000907
US	2000-664610	Ā	20000918
US.	2000-665350	A	20000918
US	2000-235451P	Р	20000926
US	2000-242837P	Ρ	20001024
US	2000-242922	Р	20001024
US	2000-242922P		
		P	20001024
US	2000-244072P 2000-70923	Ρ	20001026
US	2000-70923	Α	20001108
US	2000-709238	Α	20001108
WO	2000-US30873	W	20001110
US	2000-253646P	P	20001128
WO	2000-US32678	W	20001201
US	2000-747259	Α	20001220
WO	2000-US34956	W	20001220
WO	2000-US3956	W	20001220
US	2000 053550		
		A	20010122
US	2001-796498	Α	20010228

```
WO 2001-US6520
                W 20010228
                W
WO 2001-US6666
                   20010301
US 2001-802706
               Α
                   20010309
US 2001-808689
               Α
                   20010314
US 2001-816744
                Α
                   20010322
US 2001-828366
                Α
                   20010405
US 2001-854208
                A
                   20010510
US 2001-854280
                Α
                   20010510
US 2001-866028
                Α
                   20010525
WO 2001-US17800 W
                   20010601
US 2001-874503
               A2 20010605
US 2001-886242
                A2 20010620
WO 2001-US19692 W
                   20010620
WO 2001-US20118 W
                   20010622
WO 2001-US21066 W
                   20010629
WO 2001-US21735 W
                   20010709
US 2001-908827
               A2 20010718
US 2001-918585
               A2 20010730
US 2001-929404
                A2 20010813
US 2001-931836
                A2 20010816
WO 2001-US26626 W 20010823
```

AB The present invention is directed to novel polypeptides and to nucleic acid mols. encoding those polypeptides. Also provided herein are vectors and host cells comprising those nucleic acid sequences, chimeric polypeptide mols. comprising the polypeptides of the present invention fused to heterologous polypeptide sequences, antibodies which bind to the polypeptides of the present invention and to methods for producing the polypeptides of the present invention. The proteins show overexpression in cancer and may of diagnostic use. Certain of the proteins were found to form complexes with one another.

```
L5 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2003 ACS ACCESSION NUMBER: 2000:384419 HCAPLUS
```

DOCUMENT NUMBER: 133:39114

TITLE: Secreted and transmembrane polypeptides and nucleic

acids encoding the same

INVENTOR(S): Baker, Kevin P.; Botstein, David; Eaton, Dan L.;

Ferrara, Napoleone; Filvaroff, Ellen; Gerritsen, Mary E.; Goddard, Audrey; Godowski, Paul J.; Grimaldi, Christopher J.; Gurney, Austin L.; Hillan, Kenneth J.;

Kljavin, Ivar J.; Napier, Mary A.; Roy, Margaret Ann;

Tumas, Daniel; Wood, William I.

PATENT ASSIGNEE(S): Genentech, Inc., USA

SOURCE: PCT Int. Appl., 187 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 113

PATENT NO.	KIND DATE	E AP	PLICATION NO.	DATE
WO 2000032776	A2 2000	00608 WO	1999-US28301	19991201
WO 2000032776	A3 2000)1228		
W: AE, AL,	AM, AT, AU,	AZ, BA, BB,	BG, BR, BY, CA,	CH, CN, CR, CU,
CZ, DE,	DK, DM, EE,	ES, FI, GB,	GD, GE, GH, GM,	HR, HU, ID, IL,
IN, IS,	JP, KE, KG,	KP, KR, KZ,	LC, LK, LR, LS,	LT, LU, LV, MD,
MG, MK,	MN, MW, MX,	NO, NZ, PL,	PT, RO, RU, SD,	SE, SG, SI, SK,
SL, TJ,	TM, TR, TT,	TZ, UA, UG,	US, UZ, VN, YU,	ZA, ZW, AM, AZ,

```
BY, KG, KZ, MD, RU, TJ, TM
     RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
         DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
          CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
WO 9928462
                    A2
                          19990610
                                           WO 1998-US25108
                                                              19981201
WO 9928462
                     А3
                           19991014
         AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
     W:
         DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE,
         KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW,
     MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
         CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
EP 1135495
                    A2
                          20010926
                                           EP 1999-968054
         AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
         IE, SI, LT, LV, FI, RO
WO 2000037640
                          20000629
                    Α2
                                           WO 1999-US30095 19991216
                          20001228
WO 2000037640
                    АЗ
         AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU,
         CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,
         IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV,
         MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK,
         SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY,
         KG, KZ, MD, RU, TJ, TM
     RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
         DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
         CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                                           WO 2000-US3565
WO 2001053486
                    Α1
                          20010726
                                                               20000211
         AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU,
         CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,
         IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA,
         MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI,
         SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM,
         AZ, BY, KG, KZ, MD, RU, TJ, TM
     RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
         DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
         CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
EP 1173563
                          20020123
                                           EP 2000-907270
                    Α1
         AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
         IE, SI, LT, LV, FI, RO
EP 1220905
                    Α2
                          20020710
                                           EP 2000-913764
                                                              20000302
        AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
    R:
         IE, FI, CY
WO 2000073454
                    Α1
                          20001207
                                           WO 2000-US8439
                                                              20000330
         AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR,
         CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU,
         ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU,
         LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE,
         SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU,
         ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
        GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                                           EP 2000-916675
EP 1210418
                    Α1
                          20020605
                                                              20000330
         AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL
WO 2000077037
                  Α2
                          20001221
                                           WO 2000-US14042 20000522
WO 2000077037
                    ΑЗ
                          20020228
```

```
AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR,
         CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU,
         ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LS, LT, LU, LV,
         MA, MD, MG, MK, MN, MW,
                                  MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE,
         SG, SI, SK, SL, TJ, TM,
                                  TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA,
         ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
     RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
         DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
         CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
EP 1208195
                        20020529
                   Α2
                                        EP 2000-936172
                                                          20000522
        AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
         IE, SI, LT, LV, FI, RO, MK, CY, AL
WO 2001009327
                        20010208
                   Α2
                                        WO 2000-US20710 20000728
WO 2001009327
                   ΑЗ
                        20010802
    W:
        AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
         CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
         HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
         LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
         SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
         YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
    RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
         DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
         CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
US 6472585
                        20021029
                   В1
                                        US 2000-648183
                                                          20000825
WO 2001040466
                   A2
                        20010607
                                        WO 2000-US32678 20001201
WO 2001040466
                   А3
                        20020510
        AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
        CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
        HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
                                                                   LS,
        LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
        SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ,
                                                                       VN.
        YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
    RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
        DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
        BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
EP 1250426
                   A2
                        20021023
                                        EP 2000-983846
                                                         20001201
       AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
        IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
US 2002058309
                        20020516
                   Α1
                                        US 2001-866028
                                                          20010525
US 2002102622
                   Α1
                        20020801
                                        US 2001-901540
                                                          20010709
US 2002146707
                   Α1
                        20021010
                                        US 2001-901257
                                                          20010709
US 2002102647
                        20020801
                   Α1
                                        US 2001-944449
                                                          20010830
US 2002110859
                   Α1
                        20020815
                                        US 2001-944457
                                                          20010830
US 2002132981
                  A1
                        20020919
                                        US 2001-944396
                                                          20010830
US 2002142958
                  Α1
                        20021003
                                        US 2001-943762
                                                          20010830
US 2002142419
                        20021003
                  Α1
                                        US 2001-944432
                                                          20010830
US 2002150976
                  Α1
                        20021017
                                        US 2001-943851
                                                          20010830
US 2002156004
                   Α1
                        20021024
                                        US 2001-944413
                                                          20010830
US 2002165143
                   Α1
                        20021107
                                        US 2001-944403
                                                          20010830
US 2002115145
                   Α1
                        20020822
                                        US 2001-944862
                                                          20010831
US 2002127643
                   Α1
                        20020912
                                        US 2001-945587
                                                          20010831
                        20020919
US 2002132768
                   Α1
                                        US 2001-945015
                                                          20010831
  2002142959
                        20021003
                   Α1
                                        US 2001-944654
                                                          20010831
  2002168715
                        20021114
                                        US 2001-944896
                   Α1
                                                        · 20010831
                                        US 2001-944944
US 2002173463
                   Α1
                        20021121
                                                          20010831
US 2002198147
                   A1
                        20021226
                                        US 2001-944907
                                                          20010831
WO 2002101069
                   Α2
                        20021219
                                        WO 2002-US10513
                                                          20020403
        AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
```

```
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
             UA, UG, UZ, VN, YU, ZA,
                                      ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
             BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
PRIORITY APPLN. INFO.:
                                          WO 1998-US25108
                                                           W 19981201
                                          US 1998-112850P
                                                           Ρ
                                                              19981216
                                          US 1998-113296P
                                                           P 19981222
                                          US 1994-233609
                                                           A2 19940425
                                          US 1994-286304
                                                           A3 19940805
                                          US 1995-443129
                                                           A1 19950517
                                          US 1996-733850
                                                           B1 19961018
                                          US 1997-67411P
                                                           P
                                                              19971203
                                          US 1997-69278P
                                                           P 19971211
                                          US 1997-69334P
                                                           P 19971211
                                          US 1997-69335P
                                                           P 19971211
                                          US 1997-69425P
                                                           P 19971212
                                         US 1997-69694P
                                                           P 19971216
                                         US 1997-69696P
                                                           P 19971216
                                                           P 19971216
                                         US 1997-69702P
                                                           P 19971217
                                         US 1997-69870P
                                                           P 19971217
                                         US 1997-69873P
                                                           P 19971218
                                         US 1997-68017P
                                         US 1998-70440P
                                                           P 19980105
                                                           P 19980209
                                         US 1998-74086P
                                         US 1998-74092P
                                                           P 19980209
                                                           P 19980225
                                         US 1998-75945P
                                         US 1998-33114
                                                           B1 19980302
                                         WO 1998-US19330 W 19980916
                                                           B1 19981216
                                         US 1998-216021
                                         US 1998-218517
                                                           B1 19981222
                                         US 1999-234730
                                                           B1 19990121
                                         US 1999-254311
                                                           A1 19990303
                                         WO 1999-US5028
                                                           W 19990308
                                         US 1999-123618P
                                                           P 19990310
                                         US 1999-123972P
                                                           P 19990311
                                         US 1999-123957P
                                                           P 19990312
                                         US 1999-125775P
                                                           P 19990323
                                         US 1999-128849P
                                                           P 19990412
                                         WO 1999-US8615
                                                           W 19990420
                                         US 1999-131445P
                                                           P 19990428
                                         US 1999-132371P
                                                           P 19990504
                                         US 1999-133459P
                                                           P 19990511
                                         US 1999-134287P
                                                           P 19990514
                                         WO 1999-US12252
                                                           W 19990602
                                         US 1999-139695P
                                                           Ρ
                                                             19990615
                                                           Р
                                         US 1999-140650P
                                                             19990622
                                         US 1999-140653P
                                                           Ρ
                                                              19990622
                                                              19990623
                                         US 1999-141037P
                                                           Ρ
                                         US 1999-143048P
                                                           Ρ
                                                              19990707
                                         US 1999-144758P
                                                           Ρ
                                                              19990720
                                         US 1999-145070P
                                                           Ρ
                                                              19990720
                                         US 1999-145698P
                                                           Ρ
                                                              19990726
                                         US 1999-146222P
                                                           ₽
                                                              19990728
                                         US 1999-149395P
                                                           Ρ
                                                              19990817
                                         US 1999-149396P
                                                           Ρ
                                                              19990817
                                         US 1999-151689P
                                                           Ρ
                                                              19990831
```

```
WO 1999-US20111 W
                     19990901
WO 1999-US20594
                     19990908
WO 1999-US20944
                     19990913
WO 1999-US21090
                     19990915
WO 1999-US21547 W
                     19990915
WO 1999-US23089
                    19991005
US 1999-158663P
                     19991008
US 1999-162506P
                Ρ
                     19991029
WO 1999-US28214
                    19991129
WO 1999-US28313 W
                    19991130
WO 1999-US28409 W
                    19991130
WO 1999-US28301 W
                    19991201
WO 1999-US28634 W
                    19991201
WO 1999-US28551 W
                    19991202
WO 1999-US28564 W
                    19991202
WO 1999-US28565 W
                    19991202
US 1999-169495P P
                    19991207
US 1999-170262P P
                    19991216
WO 1999-US30095 W
                    19991216
WO 1999-US30911 A
                    19991220
WO 1999-US30999 W
                    19991220
WO 1999-US31243
                 W
                    19991230
WO 1999-US31274
                 W
                    19991230
WO 2000-US219
                    20000105
                 W
WO 2000-US277
                 W
                    20000106
WO 2000-US376
                 W
                    20000106
WO 2000-US3565
                 W
                    20000211
WO 2000-US4341
                 W
                    20000218
WO 2000-US4342
                 W
                    20000218
WO 2000-US4414
                 Α
                    20000222
WO 2000-US6319
                    20000222
WO 2000-US4914
                 Α
                    20000224
WO 2000-US5004
                    20000224
WO 2000-US5601
                 W
                    20000301
WO 2000-US5841
                 W
                    20000302
US 2000-187202P
                Ρ
                    20000303
WO 2000-US6884
                 W
                    20000315
WO 2000-US7377
                 W
                    20000320
WO 2000-US7532
                 W
                    20000321
WO 2000-US8439
                 W
                    20000330
WO 2000-US13705
                 W
                    20000517
WO 2000-US14042
                 W
                    20000522
WO 2000-US14941
                 W
                    20000530
US 2000-209832P
                Ρ
                    20000605
WO 2000-US20710
                W
                    20000728
WO 2000-US22031
                    20000811
                 W
WO 2000-US23328
                W
                    20000824
US 2000-648252
                 B1 20000825
                 B1 20000825
US 2000-648258
                W 20001108
WO 2000-US30952
WO 2000-US32678
                W 20001201
WO 2001-US6520
                 W 20010228
US 2001-866028
                 A1 20010525
US 2001-880457
                 A 20010612
```

The present invention is directed to secreted and transmembrane polypeptides and to nucleic acid mols. encoding those polypeptides. Eighteen cDNAs were identified by screening the deduced amino acid sequences for extracellular domain homol., and the cDNA clones isolated by amylase screening. Also provided herein are vectors and host cells

comprising those nucleic acid sequences, chimeric polypeptide mols. comprising the polypeptides of the present invention fused to heterologous polypeptide sequences, **antibodies** which bind to the polypeptides of the present invention, and to methods for producing the polypeptides of the present invention.

ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2003 ACS 1999:375661 HCAPLUS ACCESSION NUMBER: DOCUMENT NUMBER: 131:28644 TITLE: Human cDNAs encoding secreted and transmembrane polypeptides INVENTOR(S): Wood, William I.; Goddard, Audrey; Gurney, Austin L.; Yuan, Jean; Baker, Kevin P.; Chen, Jian PATENT ASSIGNEE(S): Genentech, Inc., USA SOURCE: PCT Int. Appl., 123 pp. CODEN: PIXXD2 DOCUMENT TYPE: Patent LANGUAGE: English FAMILY ACC. NUM. COUNT: 113 PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE ----_____ -----------WO 9928462 Α2 19990610 WO 1998-US25108 19981201 WO 9928462 A3 19991014 W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, M: AL, AH, AI, AO, AZ, BA, BB, BG, BR, BI, CA, CH, CN, CO, CZ, BL, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI FR GR GR IF IT LU MC NIL PT, SE BF, RJ, CF, CG, CI FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG AU 9916029 A1 19990616 AU 1999-16029 19981118 AU 736506 В2 20010726 CA 2311640 19990610 AΑ CA 1998-2311640 19981201 EP 1037979 Α2 20000927 EP 1998-960440 19981201 AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO JP 2002505850 Т2 20020226 JP 2000-523338 19981201 EP 1191101 Α2 20020327 EP 2001-126188 19981201 EP 1191101 А3 20020828 AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO EP 1209168 EP 2001-126187 19981201 Α1 20020529 AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL ZA 9811071 Α 19990805 ZA 1998-11071 19981203 WO 2000032221 Α2 20000608 WO 1999-US28313 19991130 WO 2000032221 АЗ 20001123 AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

```
WO 2000032778
                    Α2
                         20000608
                                         WO 1999-US28409 19991130
WO 2000032778
                    А3
                         20001019
         AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU,
         CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,
         IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD,
         MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK,
         SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
     RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
         DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
         CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
EP 1135485
                                       EP 1999-960624
                   A2 20010926
                                                           19991130
         AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
         IE, SI, LT, LV, FI, RO
EP 1135491
                   A2 20010926
                                        EP 1999-965077
                                                          19991130
         AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
         IE, SI, LT, LV, FI, RO
JP 2002531092
                   Т2
                         20020924
                                         JP 2000-585409
                                                           19991130
WO 2000032776
                   Α2
                         20000608
                                        WO 1999-US28301
                                                          19991201
WO 2000032776
                   A3
                         20001228
        AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU,
    W:
         CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD,
        MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK,
         SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ,
         BY, KG, KZ, MD, RU, TJ, TM
    RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
         DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
         CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                   A2 20010926
EP 1135495
                                       EP 1999-968054
                                                           19991201
        AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
         IE, SI, LT, LV, FI, RO
US 2002058309
                                                         20010525
                  Α1
                        20020516
                                        US 2001-866028
US 2002102647
                   Α1
                        20020801
                                        US 2001-944449
                                                           20010830
US 2002110859
                 . A1
                        20020815
                                        US 2001-944457
                                                           20010830
US 2002132981
                   A1
                        20020919
                                        US 2001-944396
                                                           20010830
US 2002142958
                   Α1
                        20021003
                                        US 2001-943762
                                                           20010830
US 2002142419
                                        US 2001-944432
                   Α1
                        20021003
                                                           20010830
US 2002150976
                   Α1
                        20021017
                                        US 2001-943851
                                                           20010830
US 2002156004
                   Α1
                        20021024
                                        US 2001-944413
                                                           20010830
US 2002165143
                   Α1
                        20021107
                                        US 2001-944403
                                                           20010830
US 2002115145
                   Α1
                        20020822
                                        US 2001-944862
                                                          20010831
US 2002127643
                   A1
                        20020912
                                        US 2001-945587
                                                          20010831
US 2002132768
                   Α1
                        20020919
                                        US 2001-945015
                                                          20010831
US 2002142959
                   Α1
                        20021003
                                        US 2001-944654
                                                          20010831
US 2002168715
                   Α1
                        20021114
                                        US 2001-944896
                                                          20010831
US 2002173463
                   Α1
                        20021121
                                        US 2001-944944
                                                          20010831
US 2002198147
                   Α1
                        20021226
                                        US 2001-944907
                                                          20010831
US 2002127576
                   Α1
                        20020912
                                        US 2001-991073
                                                          20011114
US 2002132252
                   Α1
                        20020919
                                        US 2001-990442
                                                          20011114
US 2002132253
                   Α1
                        20020919
                                        US 2001-991163
                                                          20011114
US 2002137890
                   Α1
                        20020926
                                        US 2001-990456
                                                          20011114
US 2002137075
                   Α1
                        20020926
                                        US 2001-993604
                                                          20011114
US 2002160384
                   Α1
                        20021031
                                        US 2001-992598
                                                          20011114
US 2002193300
                   Α1
                        20021219
                                        US 2001-990444
                                                          20011114
US 2002198148
                   Α1
                        20021226
                                        US 2001-990436
                                                          20011114
US 2002198149
                        20021226
                  Α1
                                        US 2001-993687
                                                          20011114
US 2002197615
                  A1
                        20021226
                                        US 2001-991181
                                                          20011116
US 2003017982
                   A1
                        20030123
                                        US 2001-990441
                                                          20011116
```

```
US 2002123463
                            20020905
                      Α1
                                           US 2001-989732
                                                            20011119
     US 2002142961
                      A1
                            20021003
                                          US 2001-989721
                                                            20011119
     US 2002193299
                      A1
                            20021219
                                          US 2001-989735
                                                            20011119
     US 2003003531
                      A1
                            20030102
                                          US 2001-989734
                                                            20011119
     US 2002103125
                      Α1
                            20020801
                                          US 2001-989731
                                                            20011120
     US 2002177164
                      Α1
                            20021128
                                          US 2001-989293
                                                            20011120
     US 2002197674
                      Α1
                            20021226
                                          US 2001-989730
                                                            20011120
     US 2003017476
                      Α1
                            20030123
                                          US 2001-989724
                                                            20011120
     US 2003017981
                            20030123
                      Α1
                                          US 2001-989728
                                                            20011120
     US 2002127584
                      Α1
                            20020912
                                          US 2002-52586
                                                            20020115
     WO 2002101069
                      Α2
                            20021219
                                         WO 2002-US10513 20020403
            AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
            CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
            LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
        BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
     US 2003008352
                    A1
A1
                                      US 2002-174590 20020618
                           20030109
     US 2003008353
                           20030109
                                          US 2002-176758
                                                           20020621
PRIORITY APPLN. INFO.:
                                       US 1997-67411P
                                                      P 19971203
                                       US 1997-69278P
                                                        P 19971211
                                       US 1997-69334P
                                                        Ρ
                                                          19971211
                                       US 1997-69335P
                                                        P 19971211
                                       US 1997-69425P
                                                        P 19971212
                                       US 1997-69694P
                                                        P 19971216
                                       US 1997-69696P
                                                        P 19971216
                                       US 1997-69702P
                                                        P 19971216
                                       US 1997-69870P
                                                        P 19971217
                                       US 1997-69873P
                                                        P 19971217
                                       US 1997-68017P
                                                        P 19971218
                                       US 1998-70440P
                                                          19980105
                                                        Ρ
                                       US 1998-74086P
                                                        Р
                                                          19980209
                                       US 1998-74092P
                                                        Ρ
                                                           19980209
                                       US 1998-75945P
                                                        Ρ
                                                           19980225
                                       US 1997-49787P
                                                        P
                                                           19970616
                                       US 1997-59263P
                                                        Ρ
                                                           19970918
                                       US 1997-59266P
                                                          19970918
                                                        Ρ
                                                          19971017
                                       US 1997-62250P
                                                        Ρ
                                                        P 19971021
                                       US 1997-63486P
                                       US 1997-63120P
                                                        P 19971024
                                                        P 19971024
                                       US 1997-63121P
                                       US 1997-63540P
                                                        P 19971028
                                       US 1997-63541P
                                                        P 19971028
                                       US 1997-63544P
                                                        P 19971028
                                       US 1997-63564P
                                                        P 19971028
                                                        P 19971029
                                       US 1997-63734P
                                       US 1997-63870P
                                                        P 19971031
                                       US 1997-64103P
                                                        P 19971031
                                       US 1997-65186P
                                                        P 19971112
                                       US 1997-65311P
                                                        P 19971113
                                       US 1997-66120P
                                                        P 19971121
                                       US 1997-66466P
                                                        P 19971124
                                       US 1997-66770P
                                                        P 19971124
                                       US 1997-66772P
                                                        P 19971124
                                       US 1998-77450P
                                                        P 19980310
                                       US 1998-77632P
                                                        P 19980311
```

```
US 1998-77649P
                  Ρ
                     19980311
 US 1998-78886P
                  Ρ
                     19980320
 US 1998-78910P
                  Ρ
                     19980320
 US 1998-78939P
                  Ρ
                     19980320
 US 1998-79664P
                  Ρ
                     19980327
 US 1998-79786P
                  Ρ
                     19980327
 US 1998-80107P
                  Ρ
                     19980331
 US 1998-80194P
                     19980331
                  Ρ
 US 1998-80327P
                     19980401
                  Ρ
 US 1998-80333P
                  P
                     19980401
 US 1998-81049P
                  Ρ
                     19980408
US 1998-81070P
                  Ρ
                    19980408
US 1998-81195P
                  Ρ
                     19980409
US 1998-81838P
                  Ρ
                     19980415
US 1998-82568P
                  Ρ
                     19980421
US 1998-82569P
                  Ρ
                    19980421
US 1998-83322P
                  Ρ
                    19980428
US 1998-84600P
                  Ρ
                    19980507
US 1998-87106P
                  Ρ
                    19980528
US 1998-87607P
                  Р
                    19980602
US 1998-87609P
                  Ρ
                    19980602
US 1998-87759P
                  Ρ
                    19980602
US 1998-87827P
                  Ρ
                    19980603
US 1998-88021P
                 Ρ
                    19980604
US 1998-88025P
                 Ρ
                    19980604
US 1998-88026P
                  Ρ
                    19980604
US 1998-88028P
                  Ρ
                    19980604
US 1998-88029P
                 Ρ
                    19980604
US 1998-88030P
                  Ρ
                    19980604
US 1998-88033P
                  Ρ
                     19980604
US 1998-88326P
                  Ρ
                     19980604
US 1998-88167P
                  Ρ
                     19980605
US 1998-88202P
                  Ρ
                     19980605
US 1998-88212P
                    19980605
                  Ρ
US 1998-88217P
                 Ρ
                    19980605
US 1998-88655P
                 Ρ
                    19980609
US 1998-88734P
                 Ρ
                     19980610
US 1998-88738P
                 Ρ
                    19980610
US 1998-88742P
                 Ρ
                    19980610
US 1998-88810P
                 Ρ
                    19980610
US 1998-88824P
                 Р
                    19980610
US 1998-88826P
                 Ρ
                    19980610
US 1998-88858P
                 Ρ
                    19980611
US 1998-88861P
                 Ρ
                    19980611
US 1998-88876P
                 Ρ
                    19980611
US 1998-89105P
                 Ρ
                    19980612
US 1998-89440P
                 Ρ
                    19980616
US 1998-89512P
                    19980616
                 Ρ
WO 1998-US19330
                 W 19980916
EP 1998-960440
                 A3 19981201
WO 1998-US25108
                 W 19981201
US 1998-112850P
                 P 19981216
US 1998-216021
                 B1 19981216
                 P 19981222
US 1998-113296P
US 1998-218517
                 B1 19981222
US 1999-115554P
                 P 19990112
US 1999-254311
                 A1 19990303
WO 1999-US5028
                 W 19990308
US 1999-123957P
                 P 19990312
```

```
US 1999-131445P P 19990428
US 1999-134287P P 19990514
WO 1999-US12252 W 19990602
US 1999-141037P P 19990623
US 1999-144758P P 19990720
US 1999-145698P P 19990726
US 1999-146222P P 19990728
WO 1999-US20111 W 19990901
WO 1999-US20594 W 19990908
WO 1999-US20944 W 19990913
WO 1999-US21090 W 19990915
WO 1999-US21547 W 19990915
WO 1999-US23089 W 19991005
US 1999-162506P P
                     19991029
WO 1999-US28313 W 19991130
WO 1999-US28409 W 19991130
WO 1999-US28301 W 19991201
WO 1999-US30095 W 19991216
WO 2000-US3565 W 20000211
WO 2000-US4414 W 20000222
WO 2000-US5841 W 20000302
WO 2000-US8439 W 20000330
WO 2000-US14042 W 20000522
WO 2000-US20710 W 20000728
WO 2000-US32678 W 20001201
WO 2001-US6520 W 20010228
US 2001-866028 A1 20010525
US 2001-880457 A 20010612
US 2001-941992 A1 20010828
US 2002-52586
                 Al 20020115
```

AB The present invention is directed to novel polypeptides and to nucleic acid mols. encoding those polypeptides. Seventeen cDNAs encoding fifteen secreted and/or transmembrane protein products are provided. Also provided herein are vectors and host cells comprising those nucleic acid sequences, chimeric polypeptide mols. comprising the polypeptides of the present invention fused to heterologous polypeptide sequences, antibodies which bind to the polypeptides of the present invention and to methods for producing the polypeptides of the present invention.

```
=> d que 17
T.1
              4 SEA FILE=REGISTRY MKEYVLLLFLALCSAKPFFSPSHIALKNMMLKDMEDTDDDDDDDD
                DDDDDDEDNSLFPTREPRSHF.{0-}VGVNDFCPTVPKMKKSLYSAISLFNNPVKYWEMQPATF
                RCVLSRMSVQLGNFGM/SQSP
L2
             20 SEA FILE=REGISTRY LKNMMLKDME|FPTREPRSHF|GLTSVPTNIP|FKGLTSLYGL|L
                SHNQLSEIP|QKDTFKGMNA|VFHIRIAEAK|KISTVELEDF|NIPRVREIHL|IFLHSNSIA
                R | NPVKYWEMQP | MSVQLGNFGM/SQSP
L3
              6 SEA FILE=HCAPLUS L1
T.4
             23 SEA FILE=HCAPLUS L2
L5
              5 SEA FILE=HCAPLUS L3 AND (ANTIBOD? OR IMMUNOGLOBULIN# OR
                HAPTEN# OR EPITOPE#)
L6
             14 SEA FILE=HCAPLUS L4 AND (ANTIBOD? OR IMMUNOGLOBULIN# OR
                HAPTEN# OR EPITOPE#)
L7
              9 SEA FILE=HCAPLUS L6 NOT L5
```

=> d ibib abs 17 1-9

L7 ANSWER 1 OF 9 HCAPLUS COPYRIGHT 2003 ACS

Foley 09/944,457

ACCESSION NUMBER: 2002:702433 HCAPLUS

Correction of: 2002:256424

DOCUMENT NUMBER: 137:196769

Correction of: 136:243000

TITLE: Human nucleic acids and their encoded proteins and

antibodies

INVENTOR(S): Rosen, Craig A.; Birse, Charles E. PATENT ASSIGNEE(S): Human Genome Sciences, Inc., USA

SOURCE: PCT Int. Appl., 1243 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002026930	A2	20020404	WO 2001-US29838	20010925
WO 2002026930	C2	20020704		20010323
W: AE, AG,	AL, AM	, AT, AU, AZ,	BA, BB, BG, BR, BY,	BZ, CA,

CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

CH, CN,

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2000-235484P P 20000926

The present invention relates to novel proteins. More specifically, 176 isolated cDNA mols. are provided encoding novel human polypeptides. Novel polypeptides and antibodies that bind to these polypeptides are provided. Also provided are vectors, host cells, and recombinant and synthetic methods for producing human polynucleotides and/or polypeptides, and antibodies. The invention further relates to diagnostic and therapeutic methods useful for diagnosing, treating, preventing and/or prognosing disorders related to these novel polypeptides. The invention further relates to screening methods for identifying agonists and antagonists of polynucleotides and polypeptides of the invention. present invention further relates to methods and/or compns. for inhibiting or enhancing the prodn. and function of the polypeptides of the present invention.

ANSWER 2 OF 9 HCAPLUS COPYRIGHT 2003 ACS ACCESSION NUMBER: 2002:575296 HCAPLUS

DOCUMENT NUMBER: 137:152024

TITLE: Methods of diagnosis of breast cancer, compositions

and methods of screening for modulators of breast

INVENTOR(S): Mack, David H.; Gish, Kurt C.; Afar, Daniel

PATENT ASSIGNEE(S): EOS Biotechnology, Inc., USA SOURCE:

PCT Int. Appl., 414 pp.

CODEN: PIXXD2 DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

```
WO 2002059377
                           A2
                                   20020801
                                                     WO 2002-US2242
                                                                         20020124
            W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
                 CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
                LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ,
            RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
                 CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
                 BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
       WO 2002059377
                            Α2
                                   20020801
                                                  WO 2002-XA2242 20020124
                AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
                CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
                GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
                LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
                PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
                UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ,
           RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
                CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
                BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
      WO 2002059377
                           A2 20020801
                                                  WO 2002-XB2242 20020124
                AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
                CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
                PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ,
           RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
                CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
      WO 2002059377
                          A2
                                  20020801
                                                   WO 2002-XC2242 20020124
               AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
                CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
               RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
PRIORITY APPLN. INFO.:
                                                US 2001-263965P
                                                                    P 20010124
                                                US 2001-265928P
                                                                    P 20010202
                                                US 2001-282698P
                                                                    P 20010409
                                                US 2001-829472
                                                                    A 20010409
                                                US 2001-288590P
                                                                    Р
                                                                        20010504
                                                US 2001-294443P P
                                                                        20010529
                                                                   W 20020124
                                                WO 2002-US2242
      The invention concerns genes whose expression are up-regulated or
AΒ
      down-regulated in breast cancer. Related methods and compns. that can be
      used for diagnosis and treatment of breast cancer are disclosed. Also
      described herein are methods that can be used to identify modulators of
     breast cancer.
     ANSWER 3 OF 9 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER:
                              2001:828445 HCAPLUS
DOCUMENT NUMBER:
                              136:396992
TITLE:
                              Human nucleic acids and polypeptides and their
```

diagnostic and therapeutic uses

INVENTOR(S): Drmanac, Rodoje T.; Liu, Chenghua; Tang, Y. Tom

PATENT ASSIGNEE(S): Hyseq, Inc., USA

SOURCE: PCT Int. Appl., 103 pp.

CODEN: PIXXD2
DOCUMENT TYPE: Patent

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 76

PATENT INFORMATION:

```
PATENT NO.
                         KIND DATE
                                                     APPLICATION NO. DATE
        ----- ----
                                       -----
                                                            -----
                                                    WO 2001-XI8631 20010330
       WO 2001075067 A2
                                       20011011
             W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM,
            CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
       WO 2001075067
                              A2 20011011
                                                          WO 2001-US8631 20010330
       WO 2001075067
                              A3
                                       20020404
       WO 2001075067
                              C2
                                       20021031
            W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
                  CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
                  HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
                  LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
                  SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
                  YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
            RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
                  DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
                  BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
PRIORITY APPLN. INFO.:
                                                       US 2000-540217 A 20000331
                                                       US 2000-649167 A 20000823
                                                       WO 2001-US8631 W 20010330
```

The present invention provides 30,368 nucleic acids and the 30,368 novel human polypeptide sequences encoded by these nucleic acids. A plurality of novel nucleic acids are obtained from cDNA libraries prepd. from various human tissues and in some cases isolated from a genomic library derived from human chromosomes using std. PCR, sequencing by hybridization signature anal., and Sanger sequencing techniques. Nearest neighbor results are identified by sequence homol. searching. The invention also relates to therapeutic, diagnostic, and research utilities for these polynucleotides and proteins. [This abstr. record is one of ten records for this document necessitated by the large no. of index entries required to fully index the document and publication system constraints.].

```
L7 ANSWER 4 OF 9 HCAPLUS COPYRIGHT 2003 ACS ACCESSION NUMBER: 2001:565205 HCAPLUS
```

DOCUMENT NUMBER: 135:163402

TITLE: Human nucleic acids and their encoded proteins and

antibodies

INVENTOR(S): Rosen, Craig A.; Barash, Steven C.; Ruben, Steven M.

PATENT ASSIGNEE(S): Human Genome Sciences, Inc., USA

SOURCE: PCT Int. Appl., 753 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 90 PATENT INFORMATION:

	KIND DATE	APPLICATION NO. DATE
WO 2001055326 W: AE, AG, AI CR, CU, CZ HU, ID, II LU, LV, MZ SD, SE, SC YU, ZA, ZV RW: GH, GM, KE DE, DK, ES BJ, CF, CC AU 2001041413 AU 2001041417 AU 2001050770 US 2002042096 US 2002077270 US 2002086811 US 2002086820 US 2002086821 US 2002086822 US 2002086823 US 2002086823 US 2002086823 US 20020868330 US 2002090615 US 2002090615 US 2002090674 US 2002094953 US 2002102638 US 2002119919 US 2002132767 US 2002147140 US 2002151479 US 2002161208 US 2002164685 US 2002173454 AU 2001052878 AU 2001043137 US 2002045230	A2 20010802 AL, AM, AT, AU, CZ, DE, DK, DM, IL, IN, IS, JP, AA, MD, MG, MK, GG, SI, SK, SL, KW, AM, AZ, BY, KE, LS, MW, MZ, CS, FI, FR, GB,	WO 2001-US1347 20010117 AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, KG, KZ, MD, RU, TJ, TM SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, GN, GW, ML, MR, NE, SN, TD, TG AU 2001-41413 20010117 AU 2001-41416 20010117

```
US 2000-220964P P
                      20000726
 US 2000-224518P
                      20000814
                   Ρ
 US 2000-224519P P
                      20000814
 US 2000-225213P P
                      20000814
 US 2000-225214P P
                      20000814
 US 2000-225266P P
                      20000814
 US 2000-225267P P
                      20000814
 US 2000-225268P P
                      20000814
 US 2000-225270P P
                      20000814
 US 2000-225447P P
                      20000814
 US 2000-225757P P
                      20000814
 US 2000-225758P P
                      20000814
 US 2000-225759P P
                      20000814
 US 2000-226279P P
                     20000818
 US 2000-226681P P
                     20000822
 US 2000-226868P P
                     20000822
US 2000-227182P P
                     20000822
US 2000-227009P P
                     20000823
US 2000-228924P P
                     20000830
US 2000-229343P P
                     20000901
US 2000-229344P P 20000901

US 2000-229287P P 20000901

US 2000-229345P P 20000901

US 2000-229509P P 20000905

US 2000-229513P P 20000905
US 2000-231413P P 20000908
US 2000-232398P P 20000914
US 2000-234223P P 20000921
US 2000-234274P P 20000921
US 2000-234997P P 20000925
US 2000-235834P P 20000927
US 2000-236327P P 20000929
US 2000-236367P P 20000929
US 2000-236368P P 20000929
US 2000-236369P P 20000929
US 2000-236370P P 20000929
US 2000-236802P P 20001002
US 2000-237037P P 20001002
US 2000-237039P P 20001002
US 2000-237040P P 20001002
US 2000-241785P P 20001020
US 2000-241809P P 20001020
US 2000-244617P P 20001101
US 2000-249299P P 20001117
US 2000-249300P P 20001117
US 2000-250160P
                 P 20001201
US 2000-251856P
                 Ρ
                     20001208
US 2000-251868P
                 Ρ
                     20001208
US 2000-251869P
                 P 20001208
                 P 20001208
US 2000-251990P
US 2001-764853
                 A2 20010117
US 2001-764856
                 A2 20010117
US 2001-764863
                 B1 20010117
US 2001-764864
                 A2 20010117
US 2001-764867
                 A2 20010117
US 2001-764868
                 A2 20010117
US 2001-764869
                 A2 20010117
US 2001-764870
                 A2 20010117
US 2001-764874
                 A2 20010117
```

```
US 2001-764882
                A2 20010117
US 2001-764888 A2 20010117
US 2001-764891
              A2 20010117
US 2001-764892 A2 20010117
US 2001-764896 A2 20010117
US 2001-764898 A2 20010117
US 2001-764902 A2 20010117
US 2001-764905 A2 20010117
WO 2001-US1239 A2 20010117
WO 2001-US1307 A2 20010117
WO 2001-US1312 A2 20010117
WO 2001-US1320 A2 20010117
WO 2001-US1329 A2 20010117
WO 2001-US1334 A2 20010117
WO 2001-US1336 A2 20010117
WO 2001-US1339 A2 20010117
WO 2001-US1340 A2 20010117
WO 2001-US1341 A2 20010117
WO 2001-US1344 A2 20010117
WO 2001-US1345 A2 20010117
WO 2001-US1347 A2 20010117
WO 2001-US1348 A2 20010117
WO 2001-US1360 A2 20010117
```

AΒ The present invention relates to novel polynucleotides and the polypeptides encoded by these polynucleotides. More specifically, 233 isolated cDNA mols. are provided encoding novel polypeptides. Novel polypeptides and antibodies that bind to these polypeptides are provided. Also provided are vectors, host cells, and recombinant and synthetic methods for producing human polynucleotides and/or polypeptides. The invention further relates to diagnostic and therapeutic methods useful for diagnosing, treating, preventing and/or prognosing disorders related to the novel polypeptides. The invention further relates to screening methods for identifying agonists and antagonists of polynucleotides and polypeptides of the invention. The present invention further relates to methods and/or compns. for inhibiting the prodn. and function of the polypeptides of the present invention. The Sequence Listing was provided as an electronic file, but was not made available in the release of this patent.

ANSWER 5 OF 9 HCAPLUS COPYRIGHT 2003 ACS L7 ACCESSION NUMBER: 2001:545709 HCAPLUS

DOCUMENT NUMBER:

135:148240 TITLE:

Human nucleic acids and polypeptides

INVENTOR(S): Tang, Y. Tom; Liu, Chenghua; Asundi, Vinod; Chen, Rui-hong; Ma, Yunqing; Qian, Xiaohong B.; Ren, Feiyan; Wang, Dunrui; Wang, Jian-rui; Wang, Zhiwei; Wehrman, Tom; Xu, Chongjun; Xue, Aidong J.; Yang, Yonghong;

Zhang, Jie; Zhao, Qing A.; Zhou, Ping; Goodrich, Ryle;

Drmanac, Radoje T.

PATENT ASSIGNEE(S): Hyseq, Inc., USA; et al. SOURCE: PCT Int. Appl., 10078 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 76

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

```
WO 2001053312
                              20010726
                       A1
                                            WO 2000-US34263 20001226
             RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
      AU 2001025965
                      A5 20010731 AU 2001-25965
                                                               20001222
      AU 2001027284
                        Α5
                              20010731
                                            AU 2001-27284
      EP 1242443
                        Α1
                             20020925
                                           EP 2000-990231
                                                              20001226
          R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
      US 2002197679
                      A1 20021226
                                             US 2002-98841
                                                               20020313
 PRIORITY APPLN. INFO.:
                                          US 2000-488725 A 20000121
                                          US 2000-552317
                                                          A 20000425
                                          US 2000-598042 A 20000709
                                          US 2000-620312 A 20000719
                                          US 2000-653450 A 20000831
                                          US 2000-662191 A 20000915
                                          US 2000-693036 A 20001019
                                          US 2000-727344 A 20001129
                                          US 1999-471275
                                                          A 19991223
                                         WO 2000-US35190 W 20001222
WO 2000-US34263 W 20001226
     The present invention provides 1768 novel nucleic acids, novel polypeptide
AΒ
     sequences encoded by these nucleic acids, and uses thereof. A plurality
     of novel nucleic acids were obtained from cDNA libraries prepd. from
     various human tissues and in some cases from a genomic library derived
     from human chromosomes using std. PCR, sequencing by hybridization (SBH)
     sequence signature anal., and Sanger sequencing techniques. The contigs
     or nucleic acids of the present invention were assembled using an EST
     sequence as a seed, with a recursive algorithm used to extend the seed EST
     into an extended assemblage by pulling addnl. sequences from different
     databases that belong to this assemblage. Full-length gene cDNA sequences
     and their corresponding protein sequences were generated from the
     assemblage.
REFERENCE COUNT:
                          6
                                THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS
                                RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
L7
     ANSWER 6 OF 9 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER:
                          2001:106057 HCAPLUS
DOCUMENT NUMBER:
                          134:188987
TITLE:
                          Human expressed sequence tags and primers for
                          synthesizing full-length cDNAs
INVENTOR(S):
                          Ota, Toshio; Isogai, Takao; Nishikawa, Tetsuo;
                          Hayashi, Kohji; Saito, Kaoru; Yamamoto, Junichi;
                          Ishii, Shizuko; Sugiyama, Tomoyasu; Wakamatsu, Ai;
                         Nagai, Keiichi; Otsuki, Tetsuji
PATENT ASSIGNEE(S):
                         Helix Research Institute, Japan
SOURCE:
                         Eur. Pat. Appl., 2527 pp.
                         CODEN: EPXXDW
DOCUMENT TYPE:
                         Patent
LANGUAGE:
                         English
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
```

PATENT NO.

KIND DATE

```
APPLICATION NO. DATE
      EP 1074617 A2 20010207 EP 2000-116126 20000728
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
              IE, SI, LT, LV, FI, RO
      JP 2002171977 A2 20020618
EP 1205549 A1 20020515
                                          JP 2000-196309
                                                            20000626
                                          EP 2000-948282 20000728
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
              IE, SI, LT, LV, FI, RO, MK, CY, AL
     JP 2002191363 A2
US 2003017480 A1
                            20020709 JP 2000-280990 20000728
                            20030123
                                          US 2002-60065
                                                            20020129
 PRIORITY APPLN. INFO.:
                                       JP 1999-248036 A 19990729
                                        JP 1999-300253 A 19990827
                                        JP 2000-118776 A 20000111
                                        JP 2000-183767 A 20000502
                                        JP 2000-241899 A 20000609
                                        US 1999-159590P P 19991018
                                        US 2000-183322P P 20000217
                                        WO 2000-JP5061 A2 20000728
                                        WO 2000-JP5065 W 20000728
     Primers for synthesizing full-length cDNAs and their use are provided.
     The invention provides 5'-end sequences for 5602 partial cDNA sequences (expressed sequence tags, ESTs) and 3'-end sequences for 4970 of these
     clones. Furthermore, primers for synthesizing the full-length cDNA have
     been provided to clarify the function of the protein encoded by the cDNA.
     The full-length cDNA sequences s of the present invention contg. the
     translation start site provides information useful for analyzing the
     functions of the proteins. Tissue- and cell-specific expression patterns
     are also provided. [This abstr. record is one of 6 records for this
     patent necessitated by the large no. of index entries required to fully
     index the document and publication system constraints.].
     ANSWER 7 OF 9 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:710448 HCAPLUS
DOCUMENT NUMBER:
                        133:262341
TITLE:
                       Expressed sequence tags and encoded human proteins
INVENTOR(S):
                        Dumas Milne Edwards, Jean-Baptiste; Duclert, Aymeric;
                        Giordano, Jean-Yves
PATENT ASSIGNEE(S):
                       Genset, Fr.
SOURCE:
                        Eur. Pat. Appl., 71 pp.
                        CODEN: EPXXDW
DOCUMENT TYPE:
                        Patent
LANGUAGE:
                        English
FAMILY ACC. NUM. COUNT: 8
PATENT INFORMATION:
    PATENT NO. KIND DATE APPLICATION NO. DATE
    EP 1033401 A2 20000906 EP 2000-200610 20000221
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, SI, LT, LV, FI, RO
    JP 2001269182 A2 20011002
                                          JP 2000-118773
                                                           20000224
PRIORITY APPLN. INFO.:
                                      US 1999-122487P P 19990226
    The sequences of 5' ESTs derived from human mRNAs encoding secreted
    proteins are disclosed. The 5' ESTs may be to obtain cDNAs and genomic
    DNAs corresponding to the 5' ESTs. The 5' ESTs may also be used in
    diagnostic, forensic, gene therapy, and chromosome mapping procedures.
    Upstream regulatory sequences may also be obtained using the 5' ESTs. The
    5' ESTs may also be used to design expression vectors and secretion
```

vectors. [This abstr. record is the second of 8 records for this document necessitated by the large no. of index entries required to fully index the document and publication system constraints.].

ANSWER 8 OF 9 HCAPLUS COPYRIGHT 2003 ACS ACCESSION NUMBER: 1999:673017 HCAPLUS

DOCUMENT NUMBER: 131:307686

TITLE:

5'-Expressed sequence tags for secreted proteins identified from human tissues

INVENTOR(S): Dumas Milne Edwards, Jean-Baptiste; Duclert, Aymeric;

Giordano, Jean-Yves Genset S. A., Fr.

PATENT ASSIGNEE(S):

SOURCE:

PCT Int. Appl., 837 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9953051 WO 9953051	A2 A3	19991021 20000406	WO 1999-IB712	19990409
W: AU, CA, RW: AT, BE, PT, SE		DE, DK, ES,	FI, FR, GB, GR, IE	, IT, LU, MC, NL,
CA 2319089 AU 9930501 EP 1068312		19991021 19991101 20010117 DK, ES, FR,	CA 1999-2319089 AU 1999-30501 EP 1999-912007 GB, GR, IT, LI, LU	19990409 19990409 19990409 , NL, SE, MC, PT,
JP 2002511259 PRIORITY APPLN. INFO.			JP 2000-543599 JS 1998-57719 A JS 1998-69047 A	19990409 19980409 19980428

A 19980428 W 19990409 WO 1999-IB712 The sequences of the 5' ends of 788 expressed sequence tags (ESTs) derived AΒ from mRNAs encoding human secreted proteins are disclosed. Chem. and enzymic methods of obtaining mRNAs with intact 5' ends, computer anal. of the isolated 5' ESTs, generation of consensus contigated 5' ESTs, and identification of open reading frames and potential signal sequences are described. Total human RNA or poly(A) + RNAs derived from 29 different tissues were purchased from LABIMO and CLONTECH and used to generate 44 cDNA libraries. Prepns. of mRNAs with <5% of rRNA and uncontaminated by exogenous sequences (prokaryotic or fungal) were used in library construction. Seven hundred five of the nucleic acids have an incomplete ORF which encodes a signal peptide, 47 have an incomplete ORF in which no sequence encoding a signal peptide has been identified, 27 have a complete ORF which encodes a signal peptide, and 19 have a complete ORF in which no sequence encoding a signal peptide has been identified. Tissue of origin and spatial and temporal tissue expression patterns of mRNAs corresponding to each of the 5' ESTs are also provided. The 5' ESTs may be to obtain cDNAS, and genomic DNAs corresponding to the 5' ESTs. The 5' ESTs may also be used in diagnostic, forensic, gene therapy, and chromosome mapping procedures. Upstream regulatory sequences may also be obtained using the 5' ESTs. The 5' ESTs may also be used to design expression vectors and secretion vectors.

ANSWER 9 OF 9 HCAPLUS COPYRIGHT 2003 ACS ACCESSION NUMBER: 1999:113805 HCAPLUS

DOCUMENT NUMBER:

130:178372

TITLE:

5'-Expressed sequence tags for secreted proteins

identified from various human tissues

INVENTOR(S):

Dumas Milne Edwards, Jean-Baptiste; Duclert, Aymeric;

Lacroix, Bruno

PATENT ASSIGNEE(S):

Genset, Fr.

SOURCE:

PCT Int. Appl., 411 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

```
PATENT NO.
                               KIND DATE
                                                                        APPLICATION NO. DATE
                                      ____
                                                 -----
                                                                           -----
                                                                                                        -----
        WO 9906553
                                       A2
                                                 19990211
                                                                           WO 1998-IB1237 19980731
         WO 9906553
                                      А3
                                                 19990408
               W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
               W: AL, AM, AT, AU, AZ, BA, BB, BG, BK, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
        AU 9885556
                                                                 AU 1998-85556 19980731
EP 1998-936595 19980731
                                      A1 19990222
        EP 1000151
                                       A2
                                                 20000517
                    AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
                       IE, FI
        JP 2002525024
                                        Т2
                                                 20020813
                                                                           JP 2000-505294
                                                                                                         19980731
PRIORITY APPLN. INFO.:
                                                                      US 1997-905051 A 19970801
WO 1998-IB1237 W 19980731
```

The sequences of the 5' ends of 147 expressed sequence tags (ESTs) derived AΒ from mRNAs encoding human secreted proteins expressed in various tissues are disclosed. Chem. and enzymic methods of obtaining mRNAs with intact 5' ends are described: (1) a chem. modification method involving derivatization of the 5' ends of the mRNAs and selection of the derivatized mRNAs, and (2) treatment with alk. phosphatase to remove the phosphate groups present on the 5' ends of uncapped incomplete mRNAs and treatment with a decapping enzyme such as T4 polynucleotide kinase or tobacco acid pyrophosphatase to remove the cap present on full-length mRNAs. The 5' ESTs are screened to identify those having an uninterrupted open reading frame longer than 45 nucleotides beginning with an ATG codon and extending to the end of the EST, and then search to identify potential signal motifs with a score of at least 3.5 in the Von Heijne signal peptide identification matrix. The 5' ESTs may be to obtain cDNAS, and genomic DNAs corresponding to the 5' ESTs. The 5' ESTs may also be used in diagnostic, forensic, gene therapy, and chromosome mapping procedures. Upstream regulatory sequences may also be obtained using the 5' ESTs. The 5' ESTs may also be used to design expression vectors and secretion vectors.